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November 2, 2009

#### Via ECFS

Marlene H. Dortch, Secretary Federal Communications Commission 445 Twelfth Street, SW Washington, DC 20554

Re: WT Docket No. 05-265

Dear Ms. Dortch:

On Friday, October 30, Syniverse Technologies presented Commission staff from the Wireless Telecommunications Bureau and International Bureau with an informational briefing on international roaming. At the request of the staff, a copy of the slides used in that presentation is being filed in this docket.

Sincerely,

David Robinson

Attachment

cc (email): Jim Schlichting

John Leibovitz Paul Murray

Nese Guendelsberger Peter Trachtenberg Christine Clearwater Roderick Porter Steven Spaeth David Strickland



# Informational Briefing: International Roaming

**David Robinson** 

## **About Syniverse**



- Global communications company enabling operators to deliver voice, data and content for their subscribers despite disparate technologies and standards since 1987
- More than 650 customers in more than 140 countries throughout the Americas, Asia Pacific and EMEA
- Broad integrated suite of services
  - Messaging solutions
  - Network and database solutions
  - Number portability services
  - Roaming and clearing
- Financial strength and stability
  - NYSE: SVR



## Five Principal Mission-Critical Industry Solutions





## Messaging Solutions

- Syniverse NEXT<sup>SM</sup>
   Advanced Messaging
   Hub
- SMS Interoperability
- MMS Interoperability
- Specialized SMS

### **Roaming Solutions**

- Roaming Hub Services
- Data Clearing
- Financial Clearing and Settlement
- Fraud Management
- Roaming Interoperability
- VAS Roaming Solutions

## Network and Database Solutions

- Network Signaling and Transport
- Interworking Gateway
- Database
- Data Management
- Number Portability

## **Business Intelligence**

- Roaming Data Reporting – Visibility® Services
- RoamWise
- RoamMonitor
- Roaming
   Management

   Services
- Automated TADIG Testing – Cross Check Analysis
- Network Business Intelligence – VisWise
- Automatic Tariff Simulation

#### Value-Added Services

- Prepaid Platform Services
- Multimedia
   Application
   Platform –
   Interactive Video
   Response System
- Welcome SMS
- Personalized Ringback Tone

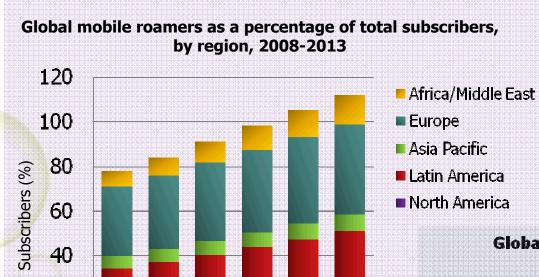


The Roaming Marketplace...



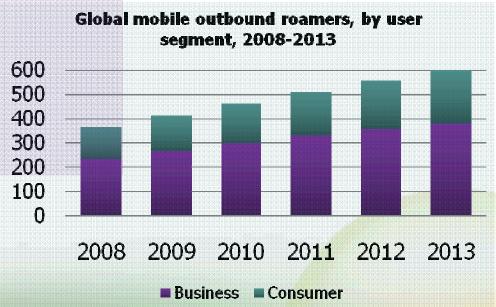
#### **Roaming Market Overview**





Source: Informa Telecoms & Media - 2008

2008 2009 2010 2011 2012 2013

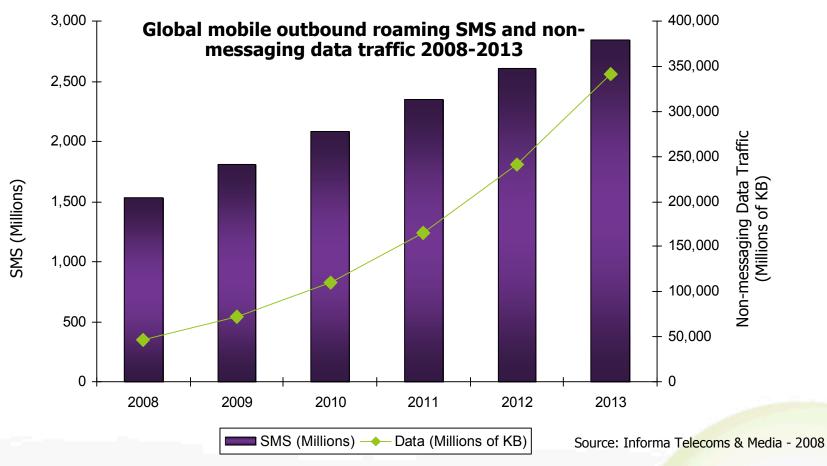


Syniverse Technologies

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# Rapid Growth in Mobile Data Roaming Traffic





Huge potential for operators to offer differentiated services



## **Regulatory Environment**

- EU imposed regulations to reduce roaming charges
  - July 1, 2009 reduced SMS and data roaming regulations enforced
    - Reduce price per SMS and MB by 60%
    - Limits price for sending SMS while abroad at €0.11. Receiving an SMS in another EU country will remain free of charge.
    - Reduces cost using mobile data while abroad by introducing a maximum wholesale cap of €1 per megabyte downloaded which will decrease each year.
    - Protects consumers from "bill shocks" by introducing a cut-off mechanism once the bill reaches €50, unless they choose another cut-off limit
      - Operators have until March 2010 to put this cut-off limit in place.
    - Further reduces prices for mobile roaming calls with a maximum tariff of €0.43 for making a call and €0.19 for receiving one.
    - Introduces per second billing after the first 30 seconds for calls made and immediately for calls received.
    - Ensures that citizens are kept adequately informed of the charges that apply for data roaming services.



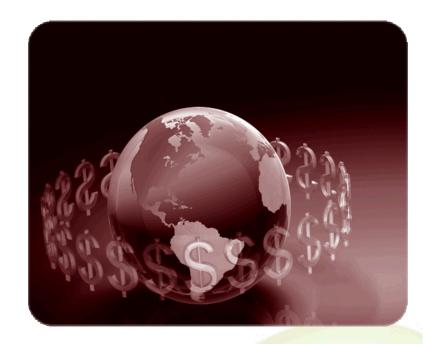
Syniverse International Roaming Solutions...



## **Current Roaming Challenges**



- Mobile subscribers' expectations (Quality of Experience)
- Bilateral agreement model cumbersome, inefficient and expensive
- Complex roaming environment
- State-owned providers and political issues
- Better management
  - Near real time measurement and reporting
  - Centralize analysis and commercial actions
- Better monitoring and control
  - Cost controls and "bill shock"
  - Revenue assurance and fraud monitoring



### **Syniverse MORE™ Roaming Solutions**



#### MORE: Coverage

- **Syniverse GSM Sponsored Roaming:** Dual IMSI solution for outbound roaming providing immediate network reach.
- Syniverse UniRoam® Interstandard Roaming Solution: Enables CDMA operators to provide their subscribers international roaming.
- Syniverse Classic Roaming Solutions: Single connection to simplify direct bilateral roaming.
- **Syniverse OC Roaming Hub:** Single entry point, one connection and one roaming agreement resulting in accelerated time to market for new services, revenue stimulation and cost efficiencies.
- **Syniverse Managed OC Roaming Hub:** Enables groups of operators to offer their own OC Roaming Hub using Syniverse's OC Roaming Hub platform and management of hub services.
- **CAMEL Roaming solutions:** Service option for home or serving operators by enabling more operators' subscribers to roam in more places using CAMEL based services (benefits prepaid consumers).

#### MORE: Optimization

- **Syniverse Outsourced Roaming Services:** Outsourced roaming department services: Alleviate complexities, reduce costs, create efficiencies and improve quality within an operator's roaming environment.
- **Business Intelligence Suite:** Intelligent tools to make business decisions that optimize operators' and subscribers high-quality mobile experiences.
- Value-Added Services: Provide a virtual home environment and a high-quality roaming experience.

## **Moving to an Open Connectivity Hub Model**



#### Now

# Established large tier 1 and 2 operators

- Reducing ROI
- Cost outweighs returns
- Fixed costs
- Difficult to justify cost of marginal roaming agreements
- Stretched roaming resources
- Slow agreement setup
- Slow 3G data rollout

#### **Roaming Hub**

- Reasonable ROI
- Variable cost
- Increase and improve revenue opportunities at minimal cost
- Optimize agreement structure
- Fast agreement setup
- Fast 3G rollout
- Enhance end-user experience
- Improve quality

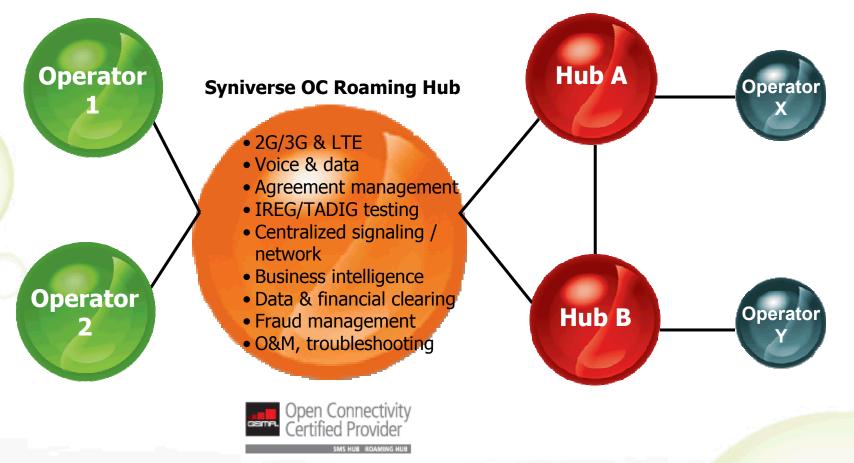
# Market entrants, tier 3 and 4 operators

- Inability to obtain large footprint
- High marketing and implementation costs
- Fixed costs
- Stretched roaming resources
- Slow agreement setup

- Increase roaming footprint
- Lower marketing and implementation costs
- Variable costs
- Optimize roaming resources
- Fast agreement setup
- Greater operational efficiencies



#### **OC Roaming Hub Model**



OC hubs connect you to all hubs and their clients

# **Optimizing Roaming Efficiency Via Open Connectivity**



- **Extend** the carrier global roaming footprint
- Manage existing roaming agreements or establishing new ones
- Reduce Carrier CAPEX by quickly enabling new roaming services without major investments in hardware, software or personnel
- Simplify management of carrier and consumer relationships
- Enable faster rollout of roaming services by reducing agreement setup, testing and data provisioning times, and signaling/network design
- Optimize roaming relationships and resources by achieving operational efficiency gains via work-flow centralization and automation
- Create market differentiation by deploying value-added services and enhancing quality of service

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### **Resolve Roaming Issues**



Solve

 Solve roaming problems before they reach subscribers

Monitor

- Monitor roaming data in near real time
- Reporting and analysis to provide access to real-time roaming activity

Comply

Comply with Global Roaming Quality

**Roaming Data Analysis**Visibility® Services - RoamProActive



Working to improve the "Roaming experience"...



## Offer Choices for Operators and Consumers

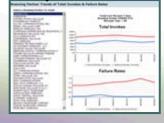


#### **Operators Subscribers Advanced Predictable Actionable Personalized Analytics** Interaction **Alerts Models Business Rules Engine (BRE) Predictive Mobile Data Roaming Data Analytics & Usage Analysis** Revenue **Monitoring** Assurance

#### **Value Proposition**

- Proactive alerting and resolution
- Personalized interaction with end user
- Near real-time actions based on analysis







## **Proactive/Continuous Mobile Data Roaming Policy Control**



#### Syniverse RoamMonitor<sup>TM</sup>

- Measure real-time subscriberlevel usage data from data network
- Perform retail rating
- Usage monitoring, analysis and reporting
- Usage-based alerts to both operator and subscriber
- Retail rate transparency

Insurance and Control

Increased ARPU

Improve Add Value Corporate



Awareness Controlled Spending

No More Bill Shock

Rate

Enhanced User Experience

Accounts



#### Solution Overview: Passive Monitoring

#### **Unique Roamer Activity**









#### **Benefits:**

- Near real time alerts to consumers
- Enables real time troubleshooting and rapid resolution of roaming issues
  - Without toolsets, it could take two to three days just to identify the cause of a problem
- Minimizes billing disputes
- Reduces Carrier OPEX; resolves problems at frontline/entry tiers instead of higher echelon of troubleshooting tools and ranks
  - Traditional network tools handled by level two or three engineers

#### **Advanced Analytics to Resolve Roaming Challenges**



#### **Analysis**

**Traffic** forecasting and behavior analysis

### **Optimization**

Discount, steering and rating

Revenue assurance and

Management

margin follow up

Roaming Business Maximization (Roamwise)

#### **Provide Cost Savings**



- Detection of revenue leakages due to:
  - Problems in TAP processing
  - Problems in rating
  - Problems mediation
- Optimization of traffic steering
- Optimization of discount agreements
- Offer consumers "roaming options" while traveling



# **Improving Communication with Subscribers**



### Accurate knowledge of roamers' behavior leads to:

- Compliance with customer spend limits
- Introduction of targeted retail plans
- New choices in roaming plans
- Network choices while traveling



#### **Conclusion**



- Today's environment brings more technical and business options for managing roaming
- Existing solutions provide operators global reach while offering subscribers personalization and control
- An integrated approach to roaming reduces complexity
  - Allow subscribers to take their device with them
  - Provide operators business intelligence to serve "network visitors"
- Carriers want to offer wireless subscribers high-quality mobile experiences – everywhere they travel!
  - Integrated solutions for communicating roaming usage information
  - Help operators make transparent business decisions
  - Provide service option choices to subscribers when they travel